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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,394	03/05/2002	Ioannis Katsavounidis	INTV.016A	8443
4586	7590	10/05/2005	EXAMINER	
ROSENBERG, KLEIN & LEE			AN, SHAWN S	
3458 ELLICOTT CENTER DRIVE-SUITE 101			ART UNIT	
ELLICOTT CITY, MD 21043			PAPER NUMBER	

2613

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,394	KATSAVOUNIDIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shawn S. An	2613	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-15,24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-15 is/are allowed.
- 6) ☒ Claim(s) 24 and 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. As per Applicants' instructions as filed on 7/19/05, claims 1, 4-5, 7-8, 13-15, and 24 have been amended, and claims 2, 16-23, 25, and 29-30 have been canceled.

### *Response to Remarks*

2. Applicants' arguments with respect to amended claims as above have been carefully reviewed and considered.

All of the currently pending claims with the exception of claims 24 and 26-28 are now allowed.

Amended claim 24 and dependent claims 26-28 are rejected in view of the new ground(s) of rejection, which follows.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 24 and 26-28** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 24** recites the limitation "third criteria" on the last line of claim 24. There is insufficient antecedent basis for this limitation in the claim.

### *Allowable Subject Matter*

5. **Claims 1, 3-4, and 9-12** are allowed.

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6. **Claims 1 and 3-4** include novel features of a method of detecting a scene change in a digital video sequence having a plurality of frames, comprising:

a method of detecting a scene change in a digital video sequence having a plurality of frames, comprising:

calculating a first color weighted root means squared (RMS) value for a first frame to a second frame, and the second frame to a third frame,

calculating a first mean absolute difference (MAD) value for the first frame relative to the second frame (Fig. 1, 1);

determining if the first color weighted RMS value meets a first criterion;

determining if the first MAD value meets a second criterion; and

designating the second frame as a *scene change* frame at least partly in response to determining that *both* the first *color weighted* RMS value meets the first criterion and the first MAD value meets the second criterion, wherein the art of records fail to anticipate or make obvious these novel features (emphasis added on *underlined limitations*).

**Claims 9-12** include novel features a method of detecting a scene change in a digital video sequence, comprising:

calculating a second temporal derivative RMS value for a first frame relative to a second frame, and the second frame relative to the third frame; and

based at least partly on the second derivative value, determining that the frame is a *scene change frame*, wherein the art of records fail to anticipate or make obvious these novel features (emphasis added on *underlined limitations*).

Accordingly, if rejected claims are canceled, the application would be placed in a condition for allowance.

7. **Claims 5-8 and 13-15** are allowed as having incorporated the allowable subject matter as discussed in the last office action.

**claims 5-8 and 13-15** recite novel features, wherein the art of records fail to anticipate or make obvious the novel features.

**Conclusion**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Gardos et al (5,737,537), Two-measure block classification scheme for encoding video images.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Please note the new fax number.



**SHAWN AN**  
**PRIMARY EXAMINER**

9/30/05